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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/548,141	04/13/2000	Douglas Lee Schales	YOR9-2000-0185-US1	7716

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EXAMINER
ALAM, UZMA

ART UNIT	PAPER NUMBER
2157	

DATE MAILED: 01/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/548,141	SCHALES ET AL.	
	Examiner	Art Unit	
	Uzma Alam	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 April 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 April 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-5, 12-16, 23, 25-28, 30, 33-35 and 38 are rejected under 35 U.S.C. 102(e) as being anticipated by Doucer et al. U.S. Patent No. 5,995,971.

As per claim 1, Doucer discloses a method for classifying a data packet, the method comprising:

receiving the data packet at a root node of a classification tree (column 17, lines 1-5);

successively passing the data packet to each child of a first tree level until a first child of the first tree level of the classification tree indicates a satisfaction of a node-criteria of said first child, and the first child forming said data packet into a matched packet (column 17, lines 5-10); and

repeating the step of passing and forming for a next tree level until no first child of said next level at a succeeding next level indicates satisfaction of the node-criteria of said first child of said next level (column 16, lines 50-67).

As per claim 2, Doucer discloses a method as recited in claim 1, wherein the step of passing includes executing a set of code which returns a status indication (column 17,lines 45-50).

As per claim 3, Doucer discloses a method as recited in claim 1, wherein the step of forming includes the first child specifying a set of code to be run subsequently (column 15, lines 50-65; column 16, lines 27-45).

As per claim 4, Doucer discloses a method as recited in claim 3, wherein the step of specifying includes specifying the set of code to be run following satisfaction (column 17, lines 45-50).

As per claim 5, Doucer discloses A method as recited in claim 1, further comprising dynamically adding at least one node in at least one level of the classification tree (column 18, lines 45-56).

As per claim 12, Doucer discloses a method as recited in claim 1, further comprising the step of parsing said matched packet and generating relevant information (column 9, lines 40-61).

As per claim 13, Doucer discloses a method as recited in claim 1, further comprising the step of transforming said matched packet into a transformed packet (column 4, lines 62-67).

As per claim 14, Doucer discloses a method as recited in claim 1, further comprising associating the packet with a last first child indicating satisfaction (column 16, lines 50-60).

As per claim 15, Doucer discloses a method as recited in claim 14, further comprising executing a set of code in accordance with said last first-child (column 32, lines 43-49).

As per claim 16, Doucer discloses a method as recited in claim 1, further comprising determining a disposition of the data packet (column 18, lines 1-13).

As per claim 23, Doucer discloses a method as recited in claim 1, further comprising employing the classification process for application level classification (column 9, lines 5-11; column 11, lines 48-60; column 31, lines 40-57).

As per claim 25, Doucer discloses a method as recited in claim 23, further comprising employing the classification process for rate limiting (column 1, lines 60-67; column 2, lines 1-10 and 42-56).

As per claim 26, Doucer discloses a method as recited in claim 23, further comprising employing the classification process for load balancing (column 1, lines 60-67; column 2, lines 1-10 and 42-56).

As per claim 27, Doucer discloses a method as recited in claim 1, further comprising employing the classification process to shape traffic (column 1, lines 56-57; column 2, lines 42-56).

As per claim 28, Doucer discloses an apparatus to classify a data packet, the apparatus comprising:

a network interface device to receive the data packet from the physical network and pass the data packet to the root node of a classification tree, and the reverse, to receive the data packet from the root node and send the data packet to the physical network (column 16, lines 50-67; column 17, lines 1-10);

a packet module to successively pass the packet from child node to child node at a next tree level until a first child node of the next tree level of the classification tree which indicates a satisfaction of a node-criteria of the first child node, and to form the data packet into a matched packet until no first child node of at a succeeding next level indicates satisfaction of the first node-criteria of the first child node of the succeeding next level (column 16, lines 47-60).

As per claim 30, Doucer discloses an apparatus as recited in claim 28, wherein the apparatus is employed for application level classification (column 9, lines 5-11; column 11, lines 48-60; column 31, lines 40-57).

As per claim 33, Doucer discloses a method as recited in claim 2, wherein the status indication is of the pm_t type (See Figure 14).

As per claim 34, Doucer discloses an article of manufacture comprising a computer-usable medium having computer readable program code means embodied therein for causing classification of a data packet, the computer readable program code means in said article of manufacture comprising computer readable program code means for causing a computer to effect the steps of claim 1 (column 4, lines 30-42).

As per claim 35, Doucer discloses an article of manufacture as recited in claim 34, the computer readable program code means in said article of manufacture further comprising computer readable program code means for causing a computer to effect dynamically adding at least one node in at least one level of the classification tree (column 6, lines 18-30).

As per claim 38, Doucer discloses an apparatus for classifying a data packet, the apparatus comprising:

means for receiving the data packet at a root node of a classification tree (column 17, lines 1-5);

means for successively passing the data packet to each child of a first tree level until a first child node of the first tree level of the classification tree indicates a satisfaction of a node-criteria of said first child node, and the first child node forming said data packet into a matched packet (column 17, lines 5-10); and

means for repeating the steps of passing and forming for a next tree level until no first child node of said next tree level at a succeeding next level indicates satisfaction of the node-criteria of said first child node of said succeeding next level (column 17, lines 50-67).

Claims 7-11, 17-21, 36-37, and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Edwards et al. U.S. Patent No. 6,320,848. See abstract.

As per claim 7, Edwards discloses a method for classifying a packet, said method comprising suspending a packet classification process in progress for said packet (column 5, lines 24-30); and obtaining external information employed in said classifying (column 3, lines 22-29; column 4, lines 1-19).

As per claim 8, Edwards discloses a method in claim 7, wherein the step of obtaining includes augmenting a node-criteria of a node in a classification tree with external information (column 3, lines 22-29; column 4, lines 9-19).

As per claim 9, Edwards discloses a method as in claim 8, wherein the external information includes identification of the originator of said packet (column 1, lines 19-26; column 3, lines 43-48).

As per claim 10, Edwards discloses a method as in claim 8, wherein the external information includes authentication of an originator of said packet (column 1, lines 19-26; column 3, lines 43-48).

As per claim 11, Edwards discloses a method as recited in claim 7, wherein the classification process is an extendible classifier process (column 4, lines 19-32).

As per claim 17, Edwards discloses a method for determining disposition of a packet received at a child node, said method comprising:

passing said packet and a first disposition of said packet to an external process (column 4, lines 1-11); and

said external process augmenting the packet disposition by employing a process specific means (column 4, lines 1-11); and returning the augmented packet and an augmented disposition to the child node (column 5, lines 15-25).

As per claim 18, Edwards discloses a method as recited in claim 17, further comprising suspending a disposition process in progress for said packet (column 5, lines 25-29).

As per claim 19, Edwards discloses a method as in claim 18, wherein the augmented disposition includes identification of an originator of said packet (column 1, lines 19-26; column 3, lines 43-48).

As per claim 20, Edwards a method as in claim 18 wherein the augmented disposition includes authentication of an originator of said packet (column 1, lines 19-26; column 3, lines 43-48).

As per claim 21, Edwards discloses a method as recited in claim 18, wherein the disposition is employed for policy enforcement (column 3, lines 8-15).

As per claim 36, Edwards discloses an article of manufacture comprising a computer-usable medium having computer readable program code means embodied therein for causing classification of a data packet, the computer-readable program code means in said article of manufacture comprising computer readable program code means for causing a computer to effect the steps of claim 8 (column 2, lines 47-67).

As per claim 37, Edwards discloses a computer program product comprising a computer usable medium having computer readable program code means embodied therein for causing a determination of a disposition of a packet, the computer readable program code means in said computer program product comprising computer readable program code means for causing a computer to effect the steps of claim 18 (column 2, lines 47-67).

As per claim 39, Edwards discloses an apparatus for determining disposition of a packet received at a child node, said apparatus comprising:

an interrupt context of a control program, said child node existing within the interrupt context (column 3, lines 22-29);

an external process outside of the interrupt context of the control program (column 3, lines 56-67);

means for passing said packet and a first disposition of said packet to the external process, said external process to augment the packet disposition by employing a process specific means and to return an augmented packet with an augmented disposition to the child node (column 4, lines 1-11; column 5, lines 15-25); and

said interrupt context including means for receiving said augmented packet and said augmented disposition from said external process(column 4, lines 1-19).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6, 22, 29, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doucer.

As per claim 6, Doucer discloses "a method as recited in claim 5, wherein said at least one child node employs the classification process for application level classification" (column 31, lines 40-67; column 32, lines 1-9). Doucer does not expressly disclose "a Real Audio node". At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the application of Doucer with the claim limitation of Real Audio. A person of ordinary skill in the art would have been motivated to do this because Real Audio is a type of application.

As per claims 22, 31 and 32, Doucer discloses "a method and apparatus as recited in claims 16 and 28 employing the classification process for security" (column 1, lines 45-53). Doucer does not expressly disclose a "firewall" or "border server" At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the security of Doucer with the claim limitations of firewall and border server. A person of ordinary skill in the art would have been motivated to do this because firewalls and border servers are a type of security measure used in networking.

As per claim 29, Doucer discloses "an apparatus as recited in claim 28, wherein a portion of the apparatus is implemented as a processor retrieving a value from a data structure rapidly" (See claims 44-46 and column 4, lines 1-15). Doucer does not expressly disclose "accelerator chip". At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the rapid retrieval of the processor of Doucer with the accelerator chip

of the claim. A person of ordinary skill in the art would have been motivated to do this because an accelerator chip would speed up the processes of the processor.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Doucer et al. U.S. Patent No. 5,995,971 in view of Edwards et al. U.S. Patent No. 6,320,848.

Doucer discloses "a method recited in claim 23" (See claim 23). Doucer does not expressly disclose, "wherein the disposition is employed for policy enforcement". Edwards discloses employing the disposition for policy enforcement. See column 3, lines 8-15. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine application level classification of Doucer with the policy enforcement of Edwards. A person of ordinary skill in the art would have been motivated to do this because the rules used to classify the packets for the applications are the same as the policies, or rules, enforced by Edwards.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uzma Alam whose telephone number is (703) 305-8420. The examiner can normally be reached on Monday - Friday 8:30 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703) 308 - 7562. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-9052 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

ua
January 24, 2003

ARIO ETIENNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100